

Remarks (continued).

- (m) Very good. (q) Bad image, hazy. Moon low down. (s) Diffused. Sky hazy. (x) Star diffused.  
(y) Definition of Moon good; planet diffused; disappeared quickly. Probable error, 1".5.  
(z) Good definition; may be a little late, perhaps 0".5.  
(zi) May be 1" or 2" late, as I was not looking at the exact point of reappearance on the invisible limb of the Moon. The time has been diminished 30" on the assumption that the wrong end of the chronometer's second-hand was taken.

In converting Oxford Mean Solar Times into Greenwich Mean Solar Times, the following Longitude has been used: 5<sup>m</sup> 2".6 W.

Eclipses of the IVth Satellite of Jupiter.

| Ref. | Day of Obs. 1885. | Satellite. | Phenomenon.              | Instrument. | Power used. | G.M.T. of Observation. h m s | G.M.T. of N.A. h m s | Observer. |
|------|-------------------|------------|--------------------------|-------------|-------------|------------------------------|----------------------|-----------|
| (α)  | Feb. 2            | IV.        | Ecl. Dis. Last seen      | Equatorial  | 125         | 10 9 16                      | 10 8 28              | R.        |
| (β)  | 19                | "          | Ecl. Re. First suspected | Heliumeter  | 200         | 8 41 42                      | 8 41 52              | W.        |
|      | "                 | "          | Ecl. Re. Confirmed       | "           | "           | 8 43 42                      |                      |           |
| (γ)  | "                 | "          | Ecl. Re. First seen      | Equatorial  | 125         | 8 43 40                      | 8 41 52              | F. B.     |
| (δ)  | Apr. 27           | "          | "                        | Heliumeter  | 160         | 8 34 51                      | 8 35 43              | R.        |
| (ε)  | "                 | "          | Ecl. Re. Suspected       | Equatorial  | 125         | 8 35 6                       | 8 35 43              | F. B.     |
|      | "                 | "          | Ecl. Re. Verified        | "           | "           | 8 35 36                      |                      |           |

Remarks.

- (α) Satellite diminished very slowly in brightness.  
(β) Reappeared, almost touching limb of Jupiter. Markings very distinct at times. Rather hazy. (γ) Very fair observation.  
(δ) Observation good, but images slightly diffused. (ε) Definition bad at times, but very fair observation.

Observers: W. = Mr. Wickham; R. = Mr. Robinson; F. B. = Mr. Bellamy.  
Apertures: Heliumeter, 7.5-inch. Equatorial, 7-inch. Dollond, 3.8-inch. Marlborough, 3.3-inch.

*Observations of Eclipses, Occultations, and Transits of Jupiter's Satellites, made with the 8-inch Cooke Equatorial at the Adelaide Observatory, South Australia: Longitude, 9h. 14m. 20s.3 E.; Latitude, 34° 56' 33".8 S.*

(Communicated by Mr. Todd.)

| Ref. No. | Date.         | Observer. | Phenomenon. | Phase of Phenomenon. | Adelaide Mean Time. |    | Corresponding Greenwich Mean Time. |   | Time by Nautical Almanac. |      | Apparent Error of N. A. |   | Power used. |
|----------|---------------|-----------|-------------|----------------------|---------------------|----|------------------------------------|---|---------------------------|------|-------------------------|---|-------------|
|          |               |           |             |                      | h                   | m  | s                                  | h | m                         | s    | h                       | m | s           |
| 1        | 1885, Jan. 7. | C.        | I. Tr. E.   | Int. contact         | 11                  | 5  | 6.7                                | 1 | 50                        | 46.4 |                         |   | 200         |
| 2        |               |           |             | Abt. bisected        | 11                  | 7  | 13.7                               | 1 | 52                        | 53.4 |                         |   | "           |
| 3        |               |           |             | Ext. contact         | 11                  | 10 | 12.5                               | 1 | 55                        | 52.2 |                         |   | "           |
| 4        | Jan. 15.      | C.        | I. Oc. R.   | First seen           | 10                  | 6  | 54.1                               | 0 | 52                        | 33.8 |                         |   | 120         |
| 5        |               |           |             | Ext. contact         | 10                  | 10 | 46.3                               | 0 | 56                        | 26.0 |                         |   | "           |
| 6        | Feb. 16.      | C.        | II. Sh. E.  | Int. contact         | 10                  | 28 | 17.0                               | 1 | 13                        | 56.7 |                         |   | 200         |
| 7        |               |           |             | Abt. bisected        | 10                  | 29 | 22.2                               | 1 | 15                        | 1.9  |                         |   | "           |
| 8        |               |           |             | Limb complete        | 10                  | 30 | 47.7                               | 1 | 16                        | 27.4 |                         |   | "           |
| 9        | Feb. 16.      | C.        | II. Tr. E.  | Int. contact         | 10                  | 33 | 45.9                               | 1 | 19                        | 25.6 |                         |   | "           |
| 10       |               |           |             | Abt. bisected        | 10                  | 35 | 18.4                               | 1 | 20                        | 58.1 |                         |   | "           |
| 11       |               |           |             | Ext. contact         | 10                  | 37 | 35.7                               | 1 | 23                        | 15.4 |                         |   | "           |
| 12       | Feb. 21.      | C.        | I. Oc. D.   | Ext. contact         | 10                  | 53 | 42.8                               | 1 | 39                        | 22.5 |                         |   | "           |
| 13       |               |           |             | Abt. bisected        | 10                  | 55 | 49.8                               | 1 | 41                        | 29.5 |                         |   | "           |
| 14       |               |           |             | Last seen            | 10                  | 57 | 28.0                               | 1 | 43                        | 7.7  |                         |   | "           |
| 15       | Feb. 21.      | C.        | I. Ec. R.   | First seen           | 13                  | 15 | 27.6                               | 4 | 1                         | 7.3  | 4                       | 0 | 8           |
| 16       |               |           |             | Full blaze           | 13                  | 17 | 27.6                               | 4 | 3                         | 7.3  |                         |   | 150±        |
|          |               |           |             |                      |                     |    |                                    |   |                           |      |                         |   | "           |